

1 users or class of -- they said, these channels? At  
2 the top end is trunk systems, and he's right. They  
3 tried to give them away twenty channels at a time.

4 Nobody wanted to take them. And the bottom half  
5 of the band, the first 100 channels was  
6 conventional. It wasn't by public safety,  
7 industrial, business, Nextel -- Nextel wasn't even  
8 born or Fleet Call whatever it was. It was a  
9 technology application. It was actually at the  
10 time very innovative on the part of the Commission.

11 But they started them wisely at different ends of  
12 the spectrum. And then they went like that after a  
13 period of time.

14 MR. STORCH: If I may just speak, and  
15 again going to the theme of process, a better  
16 process, I think it's interesting and 800 and the  
17 doors open so we're there. But the reality is, and  
18 I think similar to land use there's property  
19 rights, and don't ask me where I became a land use  
20 person because it comes from siting cell sites --

21 (Laughter.)

22 Similar to land use, you know there's

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1 certain rights that do notify the incumbent  
2 property owners. And there is a process there.  
3 And that's what I mean by a better process. I  
4 think most of the rule making that's done by the  
5 FCC today, frequency allocation, gets very  
6 myopically focused on the individual band. And  
7 okay, we'll put up a little guard band. That's  
8 good. Instead of looking at the more total  
9 picture, and it is. Which is true. It started out  
10 conventional here and there, and oh by the way  
11 we'll allow some simplex use somewhere in the  
12 middle of it and really confuse the heck out of  
13 everybody.

14 But then it transitioned, and they said  
15 okay, well these six we'll give to public safety  
16 and these six we'll give to industrial and this,  
17 and there was no recognition of the other property  
18 owners if you will. And there was no process to  
19 that that took into account that interaction and  
20 what was building of that moment.

21 So I think it's a good case study to  
22 say what is a better process and then take it a

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1 little more globally and deal with that. Because I  
2 think by the same token, you can go to when  
3 cellular received its expanded spectrum, which was  
4 the guard band. And it just said, and if I will if  
5 you will allow me, I mean I remember back some of  
6 the public commentary there which was very little.

7 People saying yeah, whatever. Just let them slide  
8 over to paraphrase it and make light of it. But it  
9 was a non-response and the FCC said okay, cellular  
10 you can go out and you can have a little bit  
11 broader bandwidth and nobody cares. You know,  
12 we'll move on.

13 MR. STANLEY: Speaking of moving on,  
14 let me sort of bring up I guess a new topic here.  
15 The Commission over the years has used a variety of  
16 techniques to try to take on some of these thornier  
17 kinds of problems on interference, and that's  
18 letting the parties negotiate themselves in not  
19 negotiated rulemakings. Or more recently actually  
20 an even more innovative concept, a guard band  
21 manager.

22 Let me start with the notion of

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1 negotiated rule making. I guess I didn't realize  
2 this until I started talking about this with Steve  
3 Baruch, but Steve has been involved in negotiated  
4 rule making process going way back to LEOs, big and  
5 little, some time ago.

6 Steve, can you say a little about what  
7 negotiated rule making is and how it is an approach  
8 that the Commission has followed to deal with  
9 interference among other matters, but interference  
10 in particular where the parties themselves bringing  
11 in their concerns to the table and the tables not  
12 at the Commission?

13 MR. BARUCH: Well, actually the table  
14 was at the Commission.

15 MR. STORCH: Figuratively speaking.

16 MR. BARUCH: What happened and actually  
17 it was ten years ago this month that the very first  
18 negotiated rulemaking commenced. It was a little  
19 LEO negotiated rulemaking. But Congress in the  
20 early 1990s adopted an amendment to the  
21 Administrative Procedure Act to create this vehicle  
22 for allowing the Commission and other agencies to

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1     conduct rulemakings with all the participates --  
2     pre-rulemakings in a sense -- with all the  
3     participants around a table, the various interested  
4     parties. The Commission would invite people who  
5     had an interest, either in the terms of an  
6     application, in terms of an affected spectrum user,  
7     other government agencies, in fact, who used  
8     adjacent bands were involved in these. Sit them  
9     down. Say, you know, give us an idea of what we  
10    should do with respect to this proposal to  
11    establish a new, in the case of the one 10 years  
12    ago, the new satellite service. That was the  
13    little LEO satellite service that they were working  
14    on which is a 136 and 400 megahertz MSS.

15               I will say that the first one, because  
16    nobody had any idea what it was, you had a couple  
17    of parties on the private sector side, applicants,  
18    who had spent the prior two years fighting each  
19    other tooth and nail with pleadings to the  
20    Commission, hyperbole content -- let me put it that  
21    way. Not much progress being made. And at the  
22    same time there was also the work going on in the

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1 ITU to try and set the stage for allocations to  
2 accommodate these systems.

3 When the Commission indicated its  
4 intent to start this process, all of a sudden the  
5 applicants dropped their swords and said we have no  
6 idea what we're getting into. They sat down with  
7 each other, came up with a draft set of rules to  
8 put their diametrically opposed positions together  
9 and all of a sudden that managed to be  
10 accomplished. Came into the Commission and said  
11 look, we've done this. You don't need to have a  
12 negotiated rulemaking now because here's our  
13 agreement. Commission went ahead and it went  
14 forward with it. There were obviously other  
15 interests involved. One of the things was the  
16 Commission wanted to make sure there was room for  
17 additional systems to come into that band. Also  
18 there was the issue of the good neighbors.  
19 Interference from satellite operations both uplink  
20 and downlink into other bands that were used in  
21 some cases by aviation and other cases by the  
22 military.

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1 MR. STANLEY: Was the success of that  
2 because largely it was like parties? We heard this  
3 really in other aspects of this discussion. It's  
4 easier that like parties find it able to come up  
5 with thresholds and negotiations and when you bring  
6 in somebody who really does live differently,  
7 certainly it has different quality of service,  
8 negotiations are far more rigorous.

9 MR. BARUCH: Yeah, I think the key to  
10 success there was that for better or for worse, at  
11 least inadvertently, the start of that process  
12 incentivized people to come together and recognize  
13 that there was an objective that had to be  
14 achieved. And I think, in fact, in the case of the  
15 little LEOs that did accelerate the completion of  
16 that rule making process and the allocation easily  
17 by a year and a half. That one was a success. The  
18 one that followed it was the big LEO negotiated  
19 rulemaking. And we were talking, I was chuckling a  
20 few moments ago when you talk about 800 megahertz,  
21 nobody wanted it. At that point in time, one of  
22 the issues to be dealt with there was feeder links

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1 and KA band.

2 I remember the first meeting of the  
3 group that was going to discuss feeder links and KA  
4 band. It was basically the two applicants who had  
5 some spectrum in that band and NASA. And nobody  
6 else had any interest in it. Everybody said what's  
7 20, 30 gigahertz? Give me a break. We're never  
8 going to get anywhere near there. The floodgates  
9 opened shortly there after, of course. There were  
10 three people in the room. We could have had that  
11 meeting in a phone booth. But that one did not end  
12 up with a uniform solution. It did not end up with  
13 a consensus solution.

14 But I still maintain that what that did  
15 was facilitate the decision making process of the  
16 Commission as well as soften up the participants  
17 for ultimate compromises that had to be made. Why  
18 it facilitated the Commission's decision making  
19 process is because the Commission was fully  
20 involved on a working level every step of the way  
21 in the negotiations. They were party to them and  
22 even if not making decisions, but observing and

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1 participating and contributing ideas -- you know,  
2 what works what doesn't work, in effect making some  
3 concession.

4 So you stripped away the rhetoric and  
5 you allowed the parties to get down, again it comes  
6 back to an ad hoc negotiation, an ad hoc solution  
7 of an interference case. They had to go out. The  
8 solution, I mean what the Commission finally  
9 proposed ultimately showed up in the form of a  
10 notice of proposed rulemaking and went through that  
11 process. But it was a much more expedited process  
12 on that end than it otherwise would have been if  
13 the Commission ended up with a stack of 30  
14 documents each saying, you know, this is our bottom  
15 line position, which of course was their starting  
16 position. No movement towards the middle. I think  
17 it was valuable.

18 And even it was, just one final note  
19 and I'm sorry to take quite so much time, but I  
20 will observe that in the satellite side of things  
21 in recent years, even though we haven't had  
22 negotiated rulemakings, we have had the sort of

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1 "big stick" approach from the Commission and has  
2 forced applicants to get together and agree among  
3 themselves and present the Commission with the  
4 uniform plan of action, to compromise a proposal  
5 for assignments. And again, I think that really is  
6 sort of an off-shoot of an negotiated rulemaking  
7 process, but it does work. And the Commission  
8 participates, representatives of Commission observe  
9 or are invited to participate in that process and  
10 do. And I think it has allowed, at least  
11 facilitated licensing, allocations, and shortened  
12 the time scale for implementation of systems.

13 MR. STANLEY: Strictly speaking, at no  
14 point would a uniform definition have been useful.

15 It was really the parties themselves with quality  
16 of service in mind splitting differences in  
17 deciding how to divide up bands and do some of the  
18 other rulemaking.

19 MR. BARUCH: I think each rulemaking,  
20 each negotiated rulemaking provided some principles  
21 that provided guidance to the following negotiated  
22 rulemaking in terms of how things were done. But

1 in terms of interference itself, completely  
2 associated only with the case that was being  
3 addressed, because what was acceptable there, the  
4 parties were different, the bands were different,  
5 the service objectives were different.

6 MR. STANLEY: Phil, any comments on the  
7 process generally?

8 MR. BARSKY: I'm not getting into  
9 specifics, but as you know we're working on  
10 something very similar to that and I'm going to say  
11 amen. It's specific between two adjacent services  
12 and the only way it's going to get done is us  
13 figuring out how to live with each other, looking  
14 at each other's architecture, understanding each  
15 other's point of view, which is very important;  
16 having a couple of honest brokers in the room. I  
17 don't want to call it a "big stick" from the  
18 Commission, but nudging and pushing and cajoling in  
19 the right manner has helped. Also, there's got to  
20 be a willingness on both parties to come up with a  
21 solution. That's very important.

22 You've got to get past the rhetoric.

1 You've got to get past the posturing and get into  
2 really talking about the issues and wanting to come  
3 up with a solution, and then getting down to each  
4 of the technical issues, and I'm sure that there  
5 were many there and we have ongoing many. I missed  
6 lunch today because of a couple. It's really what  
7 I like to call in engineering jargon attention to  
8 detail. And it's only when the details get worked  
9 out between the parties that you're going to have a  
10 solution.

11 MR. STANLEY: Okay, thank you. Let me  
12 just change the subject a little bit and bring up  
13 the idea of the guard band manager.

14 Mark, you have the authority of the  
15 Commission in several ways in term of making  
16 interference determinations and who gets what.

17 MR. CROSBY: I have to be careful.  
18 Peter is sitting in the front row over here.

19 MR. STANLEY: Would you maybe explain a  
20 little about the concept of guard band manager and  
21 how interference, in particular with public safety  
22 in mind, is really part of what's been addressed

1 here?

2 MR. CROSBY: Well, let me clarify. The  
3 guard band manager refers to activities that are  
4 700 megahertz and then there's the theory that a  
5 new class of FCC licensee could be band managers in  
6 just a couple proceedings. The band manager is  
7 given, I would say, well, we're given some freedom  
8 to, use that word --

9 MR. STANLEY: Flexibility.

10 MR. CROSBY: Flexibility. Thank you.  
11 To permit the deployment and to facilitate the  
12 deployment of numerous types of technologies. And  
13 in rural areas there's a different type of need.  
14 And we can address, as a band manager, applications  
15 in rural would be different in urban areas. And we  
16 obviously are motivated to be very careful because  
17 people are obviously reimbursing us for the use of  
18 our spectrum, to be very careful with the  
19 interference.

20 At 700, we have an obligation to  
21 cooperate with, and it's our intention to do so to  
22 work very carefully with the public safety

1 community when they deploy at 700 that are in the  
2 adjacent bands. And of course, I haven't had any  
3 direct yet. I've only had a few, but we also have  
4 an obligation to stay out of the grade b contours  
5 of the incumbent broadcasters. Although even that,  
6 while you might go boy, that's a problem, you know,  
7 you got transmit receive side. So you get a little  
8 bit creative and you go, guess what, I'm going to  
9 try to do some non-standard pairing so that I can  
10 use spectrum here and stay out of the top side.

11 Or I go -- I can look at and we are.  
12 We look at, you know, there's an incumbent on  
13 channel 66, but I'm at the bottom of channel 65.  
14 And I bet you with some unique engineering, and I'm  
15 going to obviously have to talk to the Commission  
16 and the broadcast incumbent, but I think we could  
17 prove with them reasonably well that we're not  
18 going to cause the broadcaster interference.

19 Much like all the other discussions,  
20 the Commission sort of gave us some very specific  
21 kind of things. The only thing they told us we  
22 can't do is cellular infrastructure. And that was

1 to be careful with public safety and watch out for  
2 the broadcasters. But go and prosper. But to get  
3 to the point, I want to point out the beauty of the  
4 band manager about the zoning changes over time.  
5 So we're going to be reluctant to do long term  
6 leases because I don't want to encumber new  
7 opportunities, new technologies, other things as  
8 the band develops and as technology develops. So  
9 we're sort of in the midst of all of this kind of  
10 thing but we have -- flexibility is good. The  
11 technologies we wrestle, we don't necessarily  
12 wrestle, but we're challenged with all of these  
13 types of matters everyday as we process requests  
14 for our spectrum.

15 MR. STANLEY: Great. Other comments on  
16 these other techniques like negotiated rulemaking,  
17 the frequency coordination function, guard band  
18 manages, or band manages?

19 David?

20 MR. HAGEMAN: Most of the all the  
21 issues the small carriers deal with are pretty well  
22 specified by the rules. And they worked well for

1 us. I would tend to think in some of these, if  
2 it's negotiated depending on how those negotiations  
3 go and who they're with, that a lot of the economic  
4 issues need to be taken out of it to what we had it  
5 clear that there's a set of guidelines that we  
6 should all go by. I don't think there would be any  
7 issues with the small guys with sitting down with a  
8 large carrier or you know someone else and talking  
9 through those as long as we're all on a level  
10 playing field.

11 MR. STANLEY: Sure. Nancy?

12 MS. JESUALE: Well, I'm thinking about  
13 our situation as the situation of public safety and  
14 it seems like both those options would be really,  
15 really useful if we had access to them. In fact, I  
16 believe there is a proposal to swap and reallocate  
17 some spectrum in 800 to kind of deal with the  
18 problem that is essentially I think a negotiated  
19 rulemaking. But it's not becoming a rule. It's  
20 going through a secondary process, I guess, which  
21 is opening it up for more due diligence and  
22 ultimately, it may be adopted or it may be changed.

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But that process of sitting down and saying okay, what are you going to do with the other party was very productive I think for all of us. And if we had a band manager, I'd have somebody to go wave my flag at. So that would be great, too.

MR. STANLEY: Dick.

MR. SMITH: Well, as someone who had a hand in enforcement for a number of years, I can certainly endorse anything that reduces or eliminates the number of necessary enforcement cases. Anything like negotiated rulemaking or cooperation amongst the users that can be encouraged is certainly a worthwhile endeavor. The Commission staff and everybody large enough, there will never be enough funds, people to carry out large numbers of enforcement cases. As society gets more complicated, we find ourselves in court more. It would be an impossible task, if there wasn't a large component of cooperation expected on the part of the spectrum users. I just think the

1 Commission ought to do everything it can to promote  
2 and encourage that.

3 MR. STANLEY: Thank you.

4 MR. STORCH: I'll concede, I'm not as  
5 familiar with the band manager concept. I think  
6 conceptually it sounds like a very good idea in the  
7 sense of an approved process. It would set for the  
8 incumbents an expectation that says hey, you don't  
9 have a lease in perpetude here. It's a set period  
10 of time so they can appropriately plan and  
11 capitalize and deal with their levies or their  
12 budgets, especially speaking more to the public  
13 safety.

14 On the same token, it will help  
15 potentially some of the more aggressive operators,  
16 or if you will, developers to adjust to the needs  
17 of the band if you will. Be able to in the  
18 scenario of you can only build it for a hundred  
19 rooms. In five years, we can revisit it. You  
20 can't, if you will. The Nextel scenario is well,  
21 they started out at about a 100 rooms and all of a  
22 sudden they needed a 1,000 rooms and they just

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1 built it, if you will, I think is the allegation.

2 (Laughter.)

3 But I think the concept of that, where  
4 it's considered just a frequency coordination,  
5 here's your channel, go off and run away. More of  
6 a continual process of managing that band I think  
7 would be a benefit to all.

8 MR. CROSBY: Let me, I meant to add one  
9 other thing we absolutely intend to do is  
10 literally, what you used to do. We're going to go  
11 out and look, field test, keep track of things, and  
12 we tell them the prospective uses or expect we're  
13 going to come out and look. Maybe not this year,  
14 but sometime within the term of your lease  
15 agreement we're coming out and we're going to  
16 check. And you know what I found? Everybody I've  
17 talked to says please come out and check because I  
18 know you're checking everybody else. And they go  
19 I'm now, and this may be a good message for the  
20 Commission. It sort of helps the integrity of the  
21 whole spectrum process, and people sort of take  
22 care of their systems a little better when they

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1 know they might -- and we will.

2 MR. STANLEY: A visit from Dick Smith.

3 MR. CROSBY: Yes, you could do some of  
4 my things.

5 MR. STANLEY: I'll give you my card.  
6 Well, it's just three o'clock now, I guess, so we  
7 know we have at least two people who have to make  
8 some plane connections fairly promptly, but I would  
9 certainly like to throw the discussion open to  
10 questions or comments from the public.

11 Question here?

12 MR. LOCKIE: Stephen, I assume that big  
13 LEO turned into LMDS and that was a good example of  
14 negotiated rulemaking although it took a long time.

15 It points out though somebody made the comment we  
16 need the Commission to be an engineer. I don't  
17 think that's a case because engineers, we're all  
18 terrible managers, as a rule. What we need is a  
19 good manager up there. But what we need are good  
20 engineers. Get them and keep them within the FCC  
21 because they make good referees and the game is  
22 great when you've got good referees. And there are

1 many times during the LDMS negotiations where some  
2 engineer would be told by his boss to say up is  
3 down and the smart FCC engineer there would say  
4 that's not crazy. And that's invaluable. So keep  
5 doing that. Get good engineers and keep them.

6 MR. STANLEY: Other questions or  
7 comments please?

8 (Pause.)

9 Well, seeing none and hearing none, let  
10 me sort of bring this particular panel to a close.

11 I want to thank the audience very much and also  
12 thank our panelists. We've had people who have  
13 come from afar and actually made some sacrifices to  
14 be here this day, and let me sort of sincerely  
15 express our gratitude to you all for staying with  
16 us like this.

17 So thank you very much, it's greatly  
18 appreciated.

19 (Applause.)

20 (Whereupon, at 3:04 p.m., the workshop  
21 was concluded.)  
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